In the Claims:

1. (currently amended) An imaging system comprising:

a radiation generator that generates a beam of penetrating radiation along a first direction;

an object that receives said beam of penetrating radiation, wherein a first portion of said beam of penetrating radiation is transmitted through said object along said first direction and a second portion of said beam of penetrating radiation is refracted along a second direction;

an analyzer that receives said first and second portions of said beam of penetrating radiation, said analyzer suppresses the intensity of said first portion of said beam of penetrating radiation and transmits said second portion of said beam of penetrating radiation; and

a detector system that receives from said analyzer said suppressed first portion of said beam of penetrating radiation and said transmitted second portion of said beam of penetrating radiation and generates an image of said object.

2. (currently amended) The imaging system of claim 1, wherein said beam of penetrating radiation is a parallel beam of penetrating radiation.

3. (original) The imaging system of claim 1, wherein said radiation generator comprises an x-ray source that generates a beam of x-rays.

4. (original) The imaging system of claim 2, wherein said radiation generator comprises an x-ray source that generates a beam of x-rays.

5. (original) The imaging system of claim 3, wherein said radiation generator comprises a monochromator that receives said beam of x-rays from said x-ray source and generates a parallel beam of x-rays.

6. (original) The imaging system of claim 4, wherein said x-ray source works in a linear projection mode.

7. (currently amended) The imaging system of claim 1, wherein said object is smaller than said beam of penetrating radiation.

8. (original) The imaging system of claim 1, wherein said analyzer comprises a multilayer mirror.

9. (original) The imaging system of claim 3, wherein said analyzer comprises a multilayer mirror.

10. (currently amended) The imaging system of claim 8, wherein said multilayer mirror comprises alternating layers of materials with large and small atomic numbers, wherein the thicknesses of the alternating layers is varied so as to suppress the intensity of said first portion of said beam of penetrating radiation.

11. (original) The imaging system of claim 10, wherein said material with a large atomic number is tungsten and said material with a small atomic number is boron-carbon.

12. (original) The imaging system of claim 9, wherein said multilayer mirror comprises alternating layers of materials with large and small atomic numbers, wherein the thicknesses of the alternating layers is varied so as to suppress the intensity of said first portion of said x-ray beam.

13. (original) The imaging system of claim 12, wherein said material with a large atomic number is tungsten and said material with a small atomic number is boron-carbon.

14. (original) The imaging system of claim 4, wherein said x-ray source operates in a point projection mode.

15. (original) The imaging system of claim 14, wherein said object moves relative to said detector system.

16. (original) The imaging system of claim 15, wherein said detector system comprises a detector comprising a column of sensitive elements.

17. (original) The imaging system of claim 16, wherein signals from said column of sensitive elements are averaged to obtain an image signal.

18. (original) The imaging system of claim 17, wherein said image signal is represented by the formula:

$$v_{kj} = \frac{1}{m}\sum_{i=1}^{m} u_{ij}\left[\tau(k-i)\right],$$

where $u_{ij}(t)$ is the signal generated by the sensitive element located at the ith row and jth column of the detector array, τ is the time interval during which the object is shifted by a distance equal to a single detector element, m is the number of columns of sensitive elements in

the detector, k is the image obtained at time $t=k\tau$.

19. (currently amended) A method of imaging an object, comprising:

subjecting an object to a beam of penetrating radiation that is directed along a first direction;

analyzing a first portion of said beam of penetrating radiation that is transmitted through said object so that the intensity of said first portion is suppressed;

analyzing a second portion of said beam of penetrating radiation that is refracted from said object;

generating an image of said object based on said suppressed first portion of said beam of penetrating radiation and said second portion of said beam of penetrating radiation.

20. (currently amended) The method of claim 19, wherein said beam of penetrating radiation is a parallel beam of penetrating radiation.

21. (currently amended) The method of claim 19, wherein said beam of penetrating radiation comprises x-rays.

22. (currently amended) The method of claim 20, wherein said beam of penetrating radiation comprises x-rays.

23. (original) The method of claim 19, wherein said object does not move during said generating an image.

24. (original) The method of claim 19, wherein said object moves during said generating an image.

25. (original) The method of claim 19, wherein said generating an image comprises averaging signals from a column of sensitive elements of a detector.